

REMARKS

File History

In the final Office action of 05/17/2005, the following rejections, objections and other actions appear to have been made:

> Claims 1-3, 10, 12-21, 24-25 were finally rejected under 35 USC §103(a) as being obvious over Lin (US 6,127,227) as combined with Misium (US 6,261,973) and further combined with George [sic] (US 6,140,024).

> Claim 11 was finally rejected under 35 USC §103(a) as being obvious over Lin , Misium '973, George and in further view of Zheng (US 6,653,199).

> Claims 22-23 were finally rejected under 35 USC §103(a) as being obvious over Lin , Misium '973, George and in further view of Hagiwara (US 5,847,427).

> A characterization was made of how the ordinary artisan would have read the Lin '227 reference (OA page 7, first non-bulleted paragraph for example). Applicant rebuts that characterization herein.

Summary of Current Response

No claims are amended.

A Rule 132 declaration is submitted in rebuttal and arguments are presented concerning the applied art and its proposed combination and/or modification.

Applicants' Overview of Outstanding Office Action

Applicant sees the outstanding Office action (OA) of 05/17/2005 as having the following major features:

(1) A foundational *finding of fact* is made that Lin '227 provides the ordinary artisan with two distinct options: (1a) energetic ion implantation, or (1b) some other "nitrogen

treatment". See for example, (pages 3 and 7 of the final OA at the first non-bulleted paragraph of each page).

(2) Based on the foundational finding re Lin '227, the OA makes a second *finding of fact* that Misium '973 teaches at col. 2, lines 1-3 that RPN ... can be used for creating Lin's nitrided layer. (OA pg. 3, bottom three lines, emphasis added). This second finding implicitly presumes that Lin's so-called nitrided layer includes surface nitridation.

(3) A third *finding of fact* is made that George (actually it is Misium again) teaches at col. 5, lines 62-67 that RPN ... may be used to protect the silicon surface of Lin's first conductive layer (OA pg. 4, 2nd paragraph, emphasis added).

(4) Based on the above first through third *findings of fact* (1)-(3), a conclusion is reached that it would have been obvious at the time of invention for an ordinary artisan to nitride Lin's first conductive layer by RPN, as suggested by Misium '973 and George (Misium) '024, the motivation of the ordinary artisan for doing so being "to lower the thermal budget of the process and improve device reliability" (OA pg. 4, 3rd paragraph, emphasis added).

(5) There is no discussion in the final Office action (OA) regarding the "evidence" of nonobviousness which Applicant submitted with the Preliminary Amendment of 1/30/2004, namely, Crivelli 2003-0183869.

(6) There is discussion regarding the technical differences pointed out in the Remarks of the Preliminary Amendment of 1/30/2004, namely, those between "punch through" nitridation and "surface" nitridation. The Patent Office appears to dismiss Applicant's earlier arguments by contending that Lin '227 teaches two possible options, namely, (1a) energetic ion implantation, or (1b) some other "nitrogen treatment". Applicant could not have anticipated this reading of Lin '227 --which Applicant respectfully submits is unreasonable-- and therefore good cause exists for Applicant to now submit the accompanying Rule 132 declaration which Applicant could not have reasonably foreseen the need for prior to the new rational which the PTO now raises, namely, that of Lin '227 teaching two possible options.

(7) The PTO again asserts without providing objective evidence, that recital of a given concentration of nitrogen atoms (1-20%) in the "nitrided surface" (Claim 12) is inherently and prima facie obvious because the ordinary artisan "would have been able to

determine [such values] using routine experimentation" (Office action, page 5, second paragraph).

Rebuttal

In rebuttal, Applicant submits the Rule 132 Declaration of Jason Taylor.

Entry into the record and consideration are requested. The Rule 132 Declaration is timely because it is submitted with a first reply after final rejection for the purpose of overcoming a new ground of rejection, namely, that based on a PTO finding that Lin '227 teaches two nitridation methods.

The submitted Rule 132 Declaration demonstrates that the PTO's foundational *finding of fact* regarding Lin '227 is clearly erroneous. Lin does not direct the ordinary artisan towards two options. There is only one teaching in Lin, namely, creating a buried nitrogen layer by energetic ion implant.

Please note MPEP §716.01(a) which states that Affidavits or declarations, when timely presented, and containing evidence of failure of others, skepticism of experts, etc., must be considered by the examiner in determining the issue of obviousness of claims for patentability under 35 U.S.C. 103.

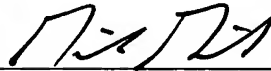
Given that evidence has been submitted showing that all outstanding rejections are founded on incorrect readings of Lin '227, Misium '973 and George '024, they should all be withdrawn.

CONCLUSION

In light of the foregoing, Applicant respectfully requests that the rejections be withdrawn. Should any other action be contemplated by the Examiner, it is respectfully requested that he contacts the undersigned at (408) 392-9250 to discuss the application.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-2257 for any matter in connection with this response, including any fee for extension of time and/or fee for additional claims, which may be required.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on July 192005.



7-19-05

Attorney for Applicant(s)

Date of Signature

Respectfully submitted,



Gideon Gimlan
Attorney for Applicants
Reg. No. 31,955

MacPherson Kwok Chen & Heid LLP
1762 Technology Drive, Suite # 226
San Jose, CA 95110
Tel: (408) 392-9250